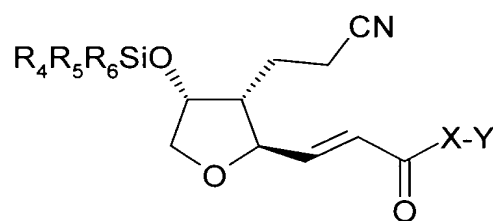


### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

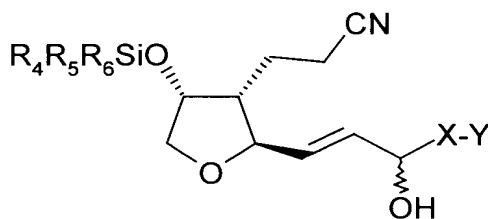
Claims 1-6 (cancelled).

Claim. 7. (New) A method of selectively reducing enone of formula XIV:



**XIV**

to allylic alcohol of formula XV:



**XV**

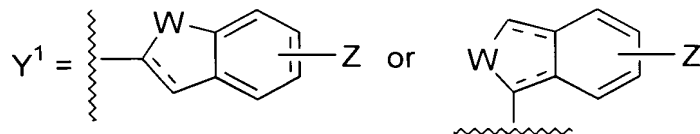
wherein:

$R_4, R_5, R_6$  = same or different = alkyl, cycloalkyl, or aryl;

$X = (CH_2)_q$  or  $(CH_2)_qO$ ;  $q = 1-6$ ; and

$Y$  = a phenyl ring optionally substituted with alkyl, halo, trihalomethyl, alkoxy, acyl, or a free or functionally modified hydroxy or amino group;

or  $X-Y = (CH_2)_m Y^1$ ,  $m = 0-6$ ,



wherein:

$W = CH_2$ ,  $O$ ,  $S(O)_m$ ,  $NR^{10}$ ,  $CH_2CH_2$ ,  $CH=CH$ ,  $CH_2O$ ,  $CH_2S(O)_m$ ,  $CH=N$ , or  $CH_2NR^{10}$ ;

$m = 0-2$ ;

$R^{10} = H$ , alkyl, acyl;

$Z = H$ , alkyl, alkoxy, acyl, acyloxy, halo, trihalomethyl, amino, alkylamino, acylamino,  $OH$ ; and

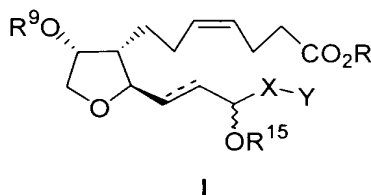
---- = single or double bond;

comprising, contacting said enone with a reducing agent selected from the group consisting of: (-)-*B*-chlorodiisopinocampheylborane and (+)-*B*-chlorodiisopinocampheylborane, in an amount sufficient to effect such reduction.

Claim 8. (New) The method of claim 7, wherein the reducing agent is (-)-*B*-chlorodiisopinocampheylborane.

Claim 9. (New) The method of claim 8, wherein the enone is (2*R* (1*E*), 3*R*, 4*R*)-3-[Tetrahydro-(2-(4-(3-chlorophenoxy)-3-oxo-1-butenyl)-4-(*t*-butyldiphenylsilyl)oxy)-3-furanyl]propanenitrile, and the resulting alcohol is (2*R* (1*E*, 3*R*), 3*R*, 4*R*)-3-[Tetrahydro-(2-(4-(3-chlorophenoxy)-3-hydroxy-1-butenyl)-4-(*t*-butyldiphenylsilyl)oxy)-3-furanyl]propanenitrile.

Claim 10. (New) A process for the preparation of 11-oxa prostaglandin analogs of formula I:



wherein:

R is H or a pharmaceutically acceptable cationic salt moiety, or CO<sub>2</sub>R forms a pharmaceutically acceptable ester moiety

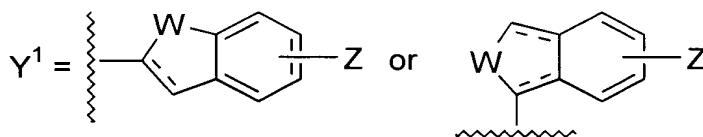
R<sup>9</sup>O and R<sup>15</sup>O are the same or different and constitute a free or functionally modified hydroxy group;

--- is a single or *trans* double bond;

X = (CH<sub>2</sub>)<sub>q</sub> or (CH<sub>2</sub>)<sub>q</sub>O; q = 1-6; and

Y = a phenyl ring optionally substituted with alkyl, halo, trihalomethyl, alkoxy, acyl, or a free or functionally modified hydroxy or amino group;

or X-Y = (CH<sub>2</sub>)<sub>m</sub>Y<sup>1</sup>, m = 0-6,



wherein:

W = CH<sub>2</sub>, O, S(O)<sub>m</sub>, NR<sup>10</sup>, CH<sub>2</sub>CH<sub>2</sub>, CH=CH, CH<sub>2</sub>O, CH<sub>2</sub>S(O)<sub>m</sub>, CH=N, or CH<sub>2</sub>NR<sup>10</sup>;

m = 0-2;

R<sup>10</sup> = H, alkyl, acyl;

Z = H, alkyl, alkoxy, acyl, acyloxy, halo, trihalomethyl, amino, alkylamino, acylamino, OH; and

---- = single or double bond;

comprising:

- a) converting 1,4-anhydro-D-glucitol to the corresponding ortho ester;
- b) silylating the ortho ester to yield to the corresponding silyl ether;
- c) removing the ortho ester group of the silyl ether to yield to the corresponding triol;
- d) converting the triol to the corresponding acetonide;
- e) oxidizing the free OH group of the acetonide to yield to the corresponding ketone;
- f) converting the ketone to the corresponding unsaturated ester;
- g) hydrogenating the unsaturated ester to yield the saturated ester;
- h) reducing the saturated ester to yield to the corresponding alcohol;
- i) converting the alcohol to the corresponding sulfonate;
- j) reacting the sulfonate with cyanide to yield to the corresponding nitrile;
- k) oxidatively cleaving the acetonide grouping of the nitrile to yield to the corresponding nitrile aldehyde;
- l) converting the nitrile aldehyde to the corresponding enone;
- m) reducing the enone with a reducing agent selected from (-)-*B*-chlorodiisopinocampheylborane and (+)-*B*-chlorodiisopinocampheylborane, to yield to the corresponding alcohol;
- n) silylating the alcohol to yield to the corresponding bis silyl ether;
- o) reducing the bis silyl ether to yield to the corresponding aldehyde;

- p)      condensing the aldehyde to yield to the corresponding ester;  
         and
- q)      desilylating the ester to yield to the corresponding end  
         product.

Claim 11.      (New) The method of claim 10, wherein for step (m), the enone is 2R (1E), 3R, 4R)-3-[Tetrahydro-(2-(4-(3-chlorophenoxy)-3-oxo-1-butenyl)-4-(t-butyldiphenylsilyl)oxy)-3-furanyl]propanenitrile and the corresponding alcohol is (2R (1E, 3R), 3R, 4R)-3-[Tetrahydro-(2-(4-(3-chlorophenoxy)-3-hydroxy-1-butenyl)-4-(t-butyldiphenylsilyl)oxy)-3-furanyl]propanenitrile.